

REMARKS

Claims 1, 10, and 18 are amended, claim 23 is canceled without prejudice or disclaimer, and no claims are added; as a result, claims 1-13, 16-22, and 85-96 are now pending in this application.

No new subject matter has been added by the amendments to claims 1, 10, and 18. Support for the amendments to claim 1 can be found throughout the specification, including but not necessarily limited to the specification at page 14, line 1 through page 15, line 22.

Claim 10 was amended merely to delete a period follow the phrase "body region" from the language of the claim.

Claims 18 has been amended to add the subject matter of now canceled claim 23 to independent claim 18.

§103 Rejection of the Claims

Claims 1, 3-4, 7-9, 18, and 96.

Claims 1, 3-4, 7-9, 18, and 96 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Endo (U.S. Patent 5,619,051) in view of Werkhoven et al. (U.S. Publication No. 2001/0041250). Applicants respectfully traverse the rejection of claims 1, 3-4, 7-9, 18, and 96.

Claims 1, 3-4, 7-9, 18, and 96 are not obvious in view of the proposed combination of Endo and Werkhoven¹ because the proposed combination of Endo and Werkhoven fails to disclose or suggest all of the subject matter included in claims 1, 3-4, 7-9, 18, and 96. By way of illustration, independent claim 1, as now amended, recites:

"a floating gate opposing the channel region and separated therefrom by a gate oxide, wherein the floating gate includes a vertically oriented floating gate formed alongside of a body region;
a control gate including a horizontally oriented control gate having at least some portion of the control gate vertically above the floating gate."

¹ Applicants do not admit or agree that any combination including Endo and Werkhoven is possible.

In contrast to independent claim 1, Endo concerns, "A floating gate electrode 16 lies on the gate dielectric film 14,"² and "A control gate electrode 20 lies on the dielectric film 18."³ However, there is no disclosure or suggestion in Endo of the floating gate vertically oriented and formed alongside of a body region, as required by independent claim 1. Further, there is no disclosure or suggestion in Endo of, "a control gate including a horizontally oriented control gate having at least some portion of the control gate vertically above the floating gate," as required by independent claim 1. For at least these reasons, Endo fails to disclose or suggest all of the subject matter included in independent claim 1.

The addition of Werkhoven fails to remedy these deficiencies in Endo. Thus, independent claim 1 is not obvious in view of the proposed combination of Endo and Werkhoven because this proposed combination of Endo and Werkhoven fails to disclose or suggest all of the subject matter included in independent claim 1.

In a further illustration, independent claim 18, as now amended, recites:

"a polysilicon floating gate opposing the channel region and separated therefrom by a gate oxide, wherein the floating gate includes a vertically oriented floating gate formed alongside of a body region."

Thus, independent claim 18, as now amended, includes the subject matter of claim 23 (wherein claim 23 is now canceled with this response). The Office Action has indicated that the subject matter of claim 23 is allowable. Therefore, independent claim 18, at least as now amended, is allowable.

Claims 3-4, 7-9, and 96 depend from independent claim 1, and for at least the reasons stated above with respect to independent claim 1, are not obvious in view of the proposed combination of Endo and Werkhoven.

Applicants respectfully request reconsideration and withdrawal of the rejection, and allowance of claims 1, 3-4, 7-9, 18, and 96.

² See Endo at column 3, lines 57-58.

³ See Endo at column 3, lines

Claims 5 and 6.

Claims 5 and 6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Endo (U.S. Patent 5,619,051) in view of Werkhoven (U.S. Patent Publication No. 20010041250) as applied to claim 1 above, and further in view of Eguchi et al. (U.S. Patent 5,618,761).

Claims 5 and 6 depend from independent claim 1. Since the proposed combination of Endo and Werkhoven fails to disclose or suggest all of the subject matter of independent claim 1, the proposed combination of Endo and Werkhoven also fails to disclose or suggest all of the subject matter of claims 5 and 6. The addition of Eguchi fails to remedy these deficiencies in Endo and Werkhoven.

Thus, any proposed combination of Endo, Werkhoven, and Eguchi⁴ fails to disclose or suggest the subject matter of claims 5 and 6, and so claims 5 and 6 are not obvious in view any proposed combination of Endo, Werkhoven, and Eguchi.

Applicants respectfully request reconsideration and withdraw of the rejection, and allowance of claims 5 and 6.

Claims 2, 20-22, and 85.

Claims 2, 20-22, and 85 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Endo (U.S. Patent 5,619,051) in view of Werkhoven et al. (U.S. Publication No. 2001/0041250) and further in view of Shinkawata et al. (U.S. Publication No. 2002/0008324).

Claims 2 and 85 depend from independent claim 1. As stated above, the proposed combination of Endo and Werkhoven fails to disclose or suggest all of the subject matter of independent claim 1. Thus, the proposed combination of Endo and Werkhoven also fails to disclose or suggest all of the subject matter of claims 2 and 85. The addition of Shinkawata fails to remedy these deficiencies in Endo and Werkhoven.

Thus, any proposed combination of Endo, Werkhoven, and Shinkawata⁵ fails to disclose or suggest the subject matter of claims 2 and 85, and so claims 2 and 85 are not obvious in view any proposed combination of Endo, Werkhoven, and Shinkawata.

⁴ Applicants do not admit or agree that any combination or combinations of Endo, Werkhoven and Eguchi are possible.

⁵ Applicants do not admit or agree that any combination or combinations of Endo, Werkhoven and Shinkawata are possible.

Claims 20-22 depend from independent claim 18. For at least the reasons stated above, independent claim 18 is allowable, and so claims 20-22 are also allowable.

Applicants respectfully request reconsideration and withdraw of the rejection, and allowance of claims 2, 20-22, and 85.

Allowable Subject Matter

Claims 10-13, 16,-17, 19 and 86-95 were allowed. Applicants respectfully acknowledge the allowance of claims 10-13, 16,-17, 19 and 86-95.

Claim 23 was objected to as being dependent upon a rejected base claim, but was indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The subject matter of allowable claim 23 has been incorporated into independent claim 18, from which claim 23 previously depended. Claim 23 is cancelled. Applicants respectfully submit that since claim 23 was allowable, independent claim 18, which now includes this subject matter, is allowable.

Reservation of Rights

In the interest of clarity and brevity, Applicants may not have addressed every assertion made in the Office Action. Applicants' silence regarding any such assertion does not constitute any admission or acquiescence. Applicants reserve all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicants do not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicants timely object to such reliance on Official Notice, and reserve all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. Applicants reserve all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of

priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

CONCLUSION

Applicants respectfully submit that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicants' attorney at (612) 349-9587 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 16 day of June 2008.

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